

REMARKS

This is in response to the Office Action dated January 10, 2008.

Resubmitted with this amendment is the previously submitted IDS (but now newly dated) that, according to the Examiner in a telephonic conversation with the undersigned on January 18, 2008, copies of the references cited were not included, even though the cited references should have been forwarded to the USPTO by WIPO, since this case is the national phase based on a PCT filing. Now that copies of the cited references, and the required English translations are attached to the submitted herewith IDS, the Examiner is respectfully requested to make of records the cited references.

Claims 1 and 2 stand rejected under 35 U.S.C. 102(b) as being anticipated by Daft (U.S.P. 5,817,023).

To expedite the prosecution claims 1 and 2 have been amended. The differences between the present invention defined by amended claims 1 and 2 and the cited prior art reference to Daft are discussed hereinbelow.

The cited reference Daft is related to a technique of apodizing an aperture of an ultrasonic imaging system. Daft does not disclose or teach a technique related to the generation of a sound field.

More specifically, reviewing ABSTRACT, Fig. 1, and Claims 1, 2 and 9 of Daft all relied upon by the Examiner, Applicant respectfully presents the following comments:

The ABSTRACT has no description as to a sound field.

In Fig. 1, "TRANSMITTER 13" is illustrated, and there is given a description as to the control of the delay time T_i using a formula (5) in column 6.

The formula (5) is as follows:

$$T_i = R_T/C - \sqrt{(R_T/C)^2 + (x/C)^2 + 2xR_T \sin\theta/C^2}$$

where x is the distance of the center of an element i from the phase center of transducer array, θ is the transmit beam angle, C is the velocity of sound in the object under study, and R_T is the range at which the transmitter beam is focused.

In the formula (5), assuming that the transmit beam angle θ is zero, and $1/C$ is moved outside the root sign, the inside of the root sign will be calculated as follows:

$$R_T^2 + X^2$$

This item corresponds to the right side of the following formula (1) appearing on page 6, line 5 of the specification of the present invention:

$$(Y+b)^2 = (ax)^2 + b^2$$

Although the original specification indicates the above formula as $(Y+b)^2 = (ax)^2 + b$, it is apparent for those skilled in the art that the rightmost item "b" of the formula should read "b²" since left side of the equation includes "b²". As indicated on page 6, line 18 of the specification of the present application,

"a" and "b" are defined as $0 < |a| < 1$, $0 < b < \text{the distance to the convergent point}$ wherein " R_T " of Daft corresponds to "b" in the present invention.

In the present invention, since "a" and "b" are respectively defined as the above, there is no opportunity that $a = 1$ and $b = \text{the distance to the convergent point}$. As a result, formula (1) in the present invention differs from formula (5) of Daft.

In claim 1 of Daft, there is merely a recitation related to the generation of a sound field at column 15, lines 23 to 26 as "a transmitter coupled to the ultrasonic transducer array and operable during the transmission mode to apply a separable signal to predetermined array elements such that a steered transmit beam is produced by the array;"

In claim 2 of Daft, no particular recitation related to the generation of a sound field is found.

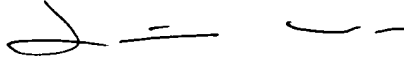
In claim 9 of Daft, there is merely a recitation related to the generation of a sound field at column 16, lines 47 to 49 as "separately operating said array elements to produce a pulse of ultrasonic energy through a medium during a transmission mode,"¹

From the above, it should be understood that Daft does not disclose or teach the present invention.

It is therefore submitted that the present invention defined by the amended claims are patentably distinguishable over the prior art, and that all of the reasons for the rejection have been overcome by the amendment of claims 1 and 2. Reconsideration and an early allowance are accordingly respectfully solicited.

¹ Notwithstanding the rebuttal herein of the claims relied upon by the Examiner for his rejection, it should be pointed out that the claims of a reference patent should not be used for rejecting the claims at issue, as the scope of the claims of a patent determines what infringes the patent, but is not a measure of what is disclosed. See *In re Benno*, 768 F. 2d 1340, 226 USPQ 683(Fed Cir. 1985).

Respectfully submitted,



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Date: April 8, 2008